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HORTICULTURE

UNIVERSITY OF WASHINGTON COLLEGE OF FOREST RESOURCES SPRING 2004

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UW Researches PNW Climate Change

LARA WHITELY BINDER, OUTREACH SPECIALIST, CLIMATE IMPACTS GROUP

Gardening in the Pacific Northwest (PNW) is not without its challenges. From the wet, cool days of winter to the dry, sunny days of summer, PNW gardeners have come to expect a wide range of conditions as the norm. But what about the larger factors influencing our climate? What changes in local climate should gardeners anticipate as they make landscaping choices for the near future and beyond?

The answer, say researchers at the UW Climate Impacts Group (CIG), is found by examining what is known about natural climate variability and global climate change in the PNW. Since its beginning in 1995, the CIG has conducted original research on the causes and consequences of climate variability and change in the PNW with the ultimate objective of reducing the region's vulnerability to climate impacts. The CIG focuses its research on the resources that define the region: water, salmon, forests, and coastal ecosystems.

Two major patterns of natural climate variability affecting PNW temperature and precipitation are the El Niño/Southern Oscillation (ENSO) and the Pacific Decadal Oscillation (PDO). ENSO cycles, more commonly known as El Niño (the warm phase of ENSO) or La Niña (the cool phase of ENSO), are a major source of year-to-year climate variability in the PNW. The PDO is a major source of variability from decade to decade.

Research conducted by the CIG finds that during the 20th century, El Niño and warm phase PDO increased the *potential* for drier, warmer winters (defined as October through March). Conversely, La Niña and cool phase PDO increased the *potential* for wetter, cooler winters in the PNW. When ENSO and PDO are in the same phase (e.g., an El Niño occurs when the PDO is in a warm phase), the potential for temperature and precipitation extremes increases. Regional interpretation of the annual ENSO forecast is available on the web from the CIG at *http://www.cses.washington.edu/cig/fpt/cloutlook.shtml*.

What about summer climate? While ENSO and PDO have important implications for winter temperature and precipitation, the high pressure ridge that gives the PNW its dry, sunny summers buffers the PNW from ENSO/PDO impacts. ENSO and PDO influences on summer PNW climate, therefore, are minimal. At longer time scales, global warming also becomes an important factor for PNW climate. Future climate scenarios are now being produced and evaluated by research groups around the world. These scenarios are based on assumptions about 1) future greenhouse gas and aerosol emissions, and 2) modeled sensistivity to those changes. Both are imperfectly known, but the scenarios that result provide valuable insights into likely future conditions.

CENTER *for* URBAN HORTICULTURE

SPECIAL EVENTS

"Over the Top"

Ninth annual NHS Auction and Party to Benefit the Miller Library
Sunday May 2, 4 to 8 p.m.

Save the date! The Northwest Horticultural Society hosts its annual auction and garden party on May 2 to benefit the Miller Library. Gardeners will gather to enjoy this fine party at CUH while helping raise funds to furnish the new and improved Elisabeth C. Miller Horticultural Library. Cost is $65 (benefactor donation $150) and a table for eight costs $475. NHS members automatically receive invitations. If you are not a member and would like to attend, call the NHS office at *nwhort@aol.com*. Reservations are required.

Arboretum Historic Review Presentation

Tuesday May 11 at the Graham Visitors Center
Presentation at 7 p.m., refreshments following
Free to the public. Phone 206-685-8033 for information.

You are invited to hear Susan Boyle of BOLA Architecture + Planning and Karen Kiest of Karen Kiest Landscape Architects present the Washington Park Arboretum Historic Review. This report documents the history of Washington Park and the Arboretum from the era of pre-settlement up through the early 1970's. It was funded by the 2000 Pro Parks Levy (administered by Seattle Parks and Recreation), and developed with the review of the Arboretum and Botanical Garden Committee. The study is one of the steps in preparation for implementing the Arboretum Master Plan.

This event is sponsored by the Center for Urban Horticulture, Washington Park Arboretum, Arboretum Foundation, and Friends of Seattle's Olmsted Parks (FSOP). Refreshments compliments of FSOP. Attendees will have a chance to review some of the original historic documents after the presentation. The Graham Visitors Center is located at 2300 Arboretum Drive East.

Garden Photography with Allan Mandell

basic and advanced classes now offered
basic class on May 21 and 22; advanced class on June 4 and 5

Allan Mandell is an award-winning professional garden photographer whose work is published internationally in leading garden magazines and books. His photography workshop last year was so popular that we are offering it again, along with an advanced workshop for experienced photographers. Allan teaches how to photograph gardens by learning how to see in the garden and to work toward a new understanding of what it means to practice photography. The 3-part workshops include a lecture, photo shoot at the Bellevue Botanic Garden, and follow-up potluck/critique session. See additional information on page 9 of this newsletter.

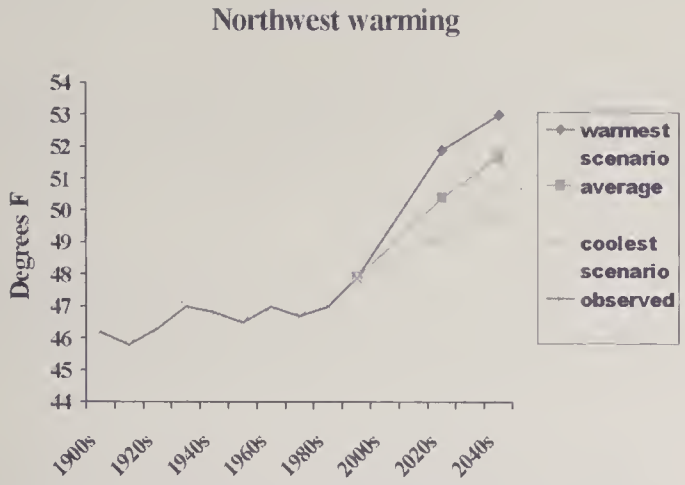

Figure 1: Projected changes in average annual PNW temperature due to global climate change. Analysis of different climate models allows the CIG to present a range of possible future temperature scenarios. All scenarios are considered equally probable at this time.

Based on an analysis of seven global climate models, the CIG projects increases in average *annual* temperature on the order of 2.5°F by the 2020s and 3.8°F by the 2040s (Figure 1). Continued improvements in global climate modeling capabilities, coupled with improved understanding of the global climate system and trends in greenhouse gas emissions, will help researchers at the CIG continue to refine these projections in the coming years. PNW winters are also expected to get wetter (+8%), but the range of uncertainty in precipitation change is much larger than that associated with temperature. Projected increases in summer precipitation are negligible and likely to be lost to increased evapotranspiration due to warmer summer temperatures. All of these changes are expected on top of the 1.5°F warming (average) already experienced throughout the region during the 20th century.

Climate change impacts on PNW temperature and precipitation are only half the story, however. From a water resources perspective, the projected changes may be significant. Water supplies dependent on accumulated winter snowpack are likely to face greater management challenges as more winter precipitation falls in the form of rain rather than snow. Lower winter snowpack reduces spring runoff into regional reservoirs, potentially reducing the amount of water available for the dry summer season. Warmer temperatures also move the timing of spring runoff earlier into the spring, lengthening the period of low summer streamflow. Continued efforts to reduce summer water demands will be an important component of managing changes in regional water supplies.

Understanding the impacts of natural climate variability and global climate change on PNW climate will help gardeners plan attractive landscapes capable of weathering the observed and projected changes associated with these climate drivers. For more information on PNW climate variability and change, visit the CIG's website at *www.cses.washington.edu/cig*.

Rare Care Celebrates Wildflowers

Wildflowers are an important part of the world's web of life. A nationwide program, "Celebrating Wildflowers," seeks to celebrate and educate the public about the importance of wildflowers. A collaboration of the Bureau of Land Management, Forest Service and the National Park Service, this program promotes conservation and management of native plants and habitats emphasizing the aesthetic, recreational, biological, medicinal and economic values of wildflowers.

In 1991 the "Celebrating Wildflowers" Program was initiated in the Pacific Northwest. CUH's Washington Rare Plant Care and Conservation Program (Rare Care) assumed leadership in 2002 to coordinate the wilflower event held at Woodland Park Zoo.

Mark Saturday, June 5 on your calendars! From 9:30 a.m. to 3:00 p.m. in the Zoo's Butterfly Forest, just east of the Butterflies and Blooms exhibit, children and adults will have the opportunity to learn about the many roles that native plants play in sustaining our planet's ecosystems. Favorite children's activities include "be a pollinator" and "leaf rubbing." Partners in past events have included the Washington Native Plant Society, King County Noxious Weed Control Program, The Nature Conservancy and the Mount Baker-Snoqualmie National Forest. Please join us this year as the Washington Park Arboretum comes on board to help us celebrate Washington's wildflowers.

Miller Library News

Hellebore Open Brings in $7000 for Library

Almost 1000 people came to the eighth Hellebore Garden Open at Heronswood Nursery on February 13 and 14. The Miller Library staff thanks Dan Hinkley, Robert Jones and the Heronistas for generously holding this fundraiser. The library received $7,000 from entry fees collected during the event.

Gardeners from Canada, Oregon, Idaho and California purchased hellebores and other specialty plants and strolled through the gardens. Dan Hinkley lectured, and afterward participants hit the sales tables to take home plants and put Dan's suggestions to work.

A special treat was the *Helleborus x nigercors 'Valentine Green'*, reduced to $20 for Valentine's Day. Again, a hearty thanks to the Heronswood crew!

Some of the pots sold at last year's NHS auction.

Miller Library Obtains Reprint of Rare Book on Woods

Recently the Miller Library obtained a reprint of a rare book, the original of which is already in the Library's rare book collection. Titled *The American Woods*, the original is by author and publisher Romeyn Beck Hough and is a 15-volume set complete with actual wood samples.

The reprint, titled *The Wood Book*, shows close-up photos of wood sections and veneers that still reveal the unique colors, textures, patterns and character of hundreds of species of woods, all in a single volume. The reprint book features transverse, radial and tangential sections for each wood grain and is now available as a reference book at the Miller Library. The acquisition of this important resource was made possible by the Jill Riehl Endowed Fund.

More than 800 volumes comprise the Miller Library's rare book collection which is currently housed in the Special Collections section of the Allen Library. The collection brings together reference books from the Washington Park Arboretum, donations from individuals and concerted efforts to procure notable historic materials by directors and librarians associated with the arboretum and the Miller library. This fall the collection will return to CUH when the new Merrill Hall completes construction.

NHS Auction
Sunday, May 2, 2004, 4 to 8 pm

The Northwest Horticultural Society (NHS) has selected *"Over The Top"* as the theme for this year's fundraising auction in support of the Miller Library's Furnishing Fund. Its goal is to reach $200,000 to replace and enhance the furnishings destroyed by fire three years ago. The fund now stands at $161,000 so the final goal is fully achievable if past history is any indication.

A strolling buffet dinner is the backdrop to both silent and live auctions. Procurement still continues but you can anticipate bidding on collector's plants from the Miller Garden and some unique examples of garden art and décor, including benches, furniture, lighting, and planters.

To request an invitation, phone 206-527-1794 or email *nwhort@aol.com* with your name and address. All NHS members automatically receive an invitation. Reservations are required. Tickets cost $65 and are limited to the first 200 people. A table for 8 costs $475. The auction will be held at NHS Hall, CUH.

Plant Answer Line Questions

QUESTION: I'm storing our wool clothing for the summer and have heard that herbs can be used in place of mothballs to keep it safe. What herbs?

ANSWER: Crushed or powdered herbs can be sown into cheesecloth bags or sachets to be stored among clothes, with spices added to help balance the scent. These herb repellents are just as efficient as mothballs. An electric grinder or blender will reduce dried herbs to a powder or they can be crushed with a mortar and pestle. Quantities of recipes for these sweet powders were recorded, many at the royal Courts of Europe, where they were handed down by successive royal perfumers. Some sources suggest simply putting dried sprigs of southernwood (*Artemesia abrotanum*) between layers of clothing or linens. Here is a more pleasantly scented alternative:

Recipe for a strong-scented moth bag:
4 parts dried, crushed mint
4 parts dried, crushed rue
2 parts dried, crushed southernwood
2 parts dried, crushed rosemary
1 part powdered cloves

SOURCES:
The Complete Book of Herbs & Spices, by Sarah Garland, 1982, pages 222—223.
New Book of Herbs, by Jekka McVicar, 2002, page 99.

QUESTION: Everyone in Seattle probably has this same problem. I have a standard-sized city lot and need to know what smallish trees I can plant—things that won't overcome my house in 15 years.

ANSWER: The Great Plant Picks organization has an excellent list of small trees that do well in the Pacific Northwest—and are readily available at local nurseries. Go to *www.greatplantpicks.org* and follow the links. The "small tree" list is on page 5.

QUESTION: What help can you give me for designing and building a fence? I want to do it myself.

ANSWER: The Miller Library has an excellent beginner's "do-it-yourself" book about fences: *Building Fences & Gates: How to Design and Build Them from the Ground Up*, by Richard Freudenberger, 1997. There are five other (more advanced) books that deal specifically with fence design and construction. Feel free to phone the library for further information at 206-897-5268, or email us at *www.millerlibrary.org*. You might also want to explore the following website: *http://doityourself.com/fence/index.html*.

QUESTION: The soil in my back yard is so hard and compacted that it won't absorb water. Short of rototilling or hiring a professional to fix it, what can I do?

ANSWER: Too much foot or heavy machinery traffic can make the soil around trees and shrubs as hard and impregnable as cement. In time, compacted soil will compromise the health of plants. To loosen it, layer ° inch of compost on top of compacted soil, then mulch with 2 to 3 inches of mulch. (Allow a ring of bare soil around the base of tree trunks and shrubs to keep damp mulch from touching the bark). Maintain the thick mulch, adding to it at least once a year. Microorganisms and larger soil creatures will eventually work their way into the dense soil below and start to loosen it.

For very serious compaction around woody plants, consult a professional. Arborists often drill deep, narrow holes into the hard soil and sometimes fill them with a mineral-based soil conditioner, such as sand, calcined clay, or shale. Sometimes, pressurized water is pumped into the ground to relieve the compaction. Deep-rooted trees fare better with this sort of treatment.

SOURCE: *Brooklyn Botanic Garden Gardener's Desk Reference*, edited by Janet Marinelli, 1998, page 465.

Plant Answer Line

The Plant Answer Line is open from 9 a.m. until 5 p.m. Monday through Friday. Call UW PLANT, 206-897-5268, or e-mail your question to:
hortlib@u.washington.edu

CUH and Arboretum News and Events

For information on Arboretum events and programs, please call 206-543-8800 or visit the website at: *www.arboretumfoundation.org*

Early Bloomers Plant Sale

Saturday April 10, 10 a.m. to 2 p.m.
The Arboretum Foundation kicks off Seattle's plant sale season with Early Bloomers, featuring hundreds of perennials, annuals and more for early planting and spring blooming. At the Washington Park Arboretum Graham Visitors Center.

FLORAbundance Spring Plant Sale

Saturday April 24 10 a.m. to 5 p.m.
Sunday April 25 10 a.m. to 3 p.m.
Members pre-sale party: Friday April 23, 6 to 8 pm
Over fifty of the Northwest's foremost specialty nurseries and vendors will be selling species and hybrid rhododendrons, unusual annuals, favorite and rare perennials, trees, shrubs, rare conifers, groundcovers, organic vegetable starts, grasses, vines and even more. Free admission and parking. The sale will be held at Sand Point/Magnuson Park.

Summer Solstice Sale

Saturday June 12, 10 a.m. to 2 p.m.
Good selection of drought-tolerant plants, container gardens and more. At the Washington Park Arboretum Graham Visitors Center

Ongoing Plant Sales at Pat Calvert Greenhouse on Tuesdays, 10 a.m. to noon. Plant donations, Wednesdays and second Saturdays, 10 a.m. to 2 p.m

New Addition to the WPA Education Department

Lisa Sanphillippo, formerly of the Pacific Science Center and Harborview Medical Center, has joined the Arboretum education staff. Lisa will be conducting education programs for schools, youth groups and families. The WPA Education Department is thrilled to welcome Lisa to the team!

Student Conservation Day

As part of the nationwide Earth Day Celebration on April 24, students from area high schools will participate in ongoing restoration projects in the Union Bay Natural Area (UBNA). Led by Yemaya Mauerer of the Student Conservation Association, approximately 150 teens will divide into teams and use their muscle to remove invasives and other unwanted plants from specific areas of UBNA. All of the areas targeted for restoration are part of CUH graduate student research projects, thus creating a unique community/research partnership.

CUH Faculty Participate in IGERT Grant

UW currently has four active "Integrative Graduate Education and Research Traineeship" (IGERT) grants from the National Science Foundation. Each of these four IGERT programs will last for five years and have averaged over $2.5 million to the UW.

Three CUH faculty members (Tom Hinckley, Sarah Reichard, and Kern Ewing) are currently participating in the IGERT titled "Multinational Collaborations on Challenges to the Environment". Its goal is to create a new interdisciplinary model for graduate education and research. Partner universities from Japan, New Zealand, Namibia, South Africa, Mozambique, Vietnam, and China will work closely with UW and the Pacific Northwest National Laboratory (PNNL), our region's major governmental research lab, in the design of the research and educational programs for students.

This grant focuses on five interwoven environmentally-related themes, specifically 1) water quality and wastewater treatment; 2) 'eco-materials' (or reducing the environmental cost of materials processing and use); 3) biodiversity, with a focus on botanical and aquatic systems; 4) goods and services from forest ecosystems; and 5) environmental social sciences. Together, nine universities from eight countries will implement a coherent and powerful set of interdisciplinary experiences for students that will enable them to become imaginative and effective leaders.

volunteer NEWS AND OPPORTUNITIES

Union Bay Opportunities:

CUH Reception Desk Volunteers Needed:

Interact with visitors, faculty, staff, and students while helping out with phone calls, light office work, and answering general questions. No experience necessary. There are several 3 and 4 hour weekday shifts available. Call Ray Larson at 206-616-9113.

Union Bay Gardeners Wanted

Volunteers are needed to maintain the Union Bay Gardens located at the Center for Urban Horticulture. The gardens contain a variety of plant types ranging from vines and herbaceous perennials to native woody shrubs and trees. At times, assistance is also needed in the container nursery area which contains woody ornamentals. Seasonal maintenance tasks are performed throughout the year rain or shine, so workers should dress appropriately. Work may be performed individually or in small groups 3 to 4 hours per week. Please contact Barbara Selemon at 206-685-2613.

Native and Rare Plant Seed Collectors and Processors

Interested in conserving Washington's native and rare plants? We are looking for volunteers to collect seeds across the state; skills needed in plant identification, plus a willingness to travel and attendance at a mandatory training session Saturday, May 1. Processors are also needed to process the seed stored in the Miller Seed Vault at CUH; must have ability and willingness to follow exact protocols. Hours are flexible. If interested, please contact Carolyn Alfano at 206-616-0780 or e-mail *rarecare@u.washington.edu*

Celebrating Wildflowers Event

Help to introduce children to the wonders and importance of our native plants. Volunteers are needed to co-run children's activities at the "Celebrating Wildflowers" event held at Woodland Park Zoo on Saturday June 5. If interested, contact Rare Care Program Manager Carolyn Alfano at 206-616-0780 or e-mail her at: *rarecare@u.washington.edu*.

Arboretum Opportunities:

Volunteers needed at the Arboretum

Volunteers provide a vital source of support caring for Arboretum plant collections and managing invasive weeds. Become a weekly gardener, helping with varied tasks that change with the season. Community service groups are also encouraged to lend a hand in one of many areas needing attention. Many hands make light work. Work parties can be scheduled throughout the year. For information, please phone David Zuckerman at 206-616-4050.

WPA Information Desk

Greet visitors, share your enthusiasm, answer questions, and interact with staff and other volunteers in the stimulating environment at the Arboretum. Shift times are either half or whole days once a month. Phone Brett Mercier at 206-543-8800.

Volunteer Guides for Spring Educational Tours

Volunteer guides lead Saplings educational tours which are offered Monday through Friday from 10 to 11:30 a.m. Saplings guides are asked to commit to lead one program per week for 12 weeks in the spring. All levels of experience are welcome! Please call WPA Education Department for details at 206-543-8801.

Seattle Youth Garden Works

Garden with Youth! Seattle Youth Garden Works is a nonprofit program providing employment, educational opportunities, and community involvement to homeless and under-served Seattle youth. We are looking for adults to help us plant, maintain, and harvest crops while providing our youth crew with positive role models. Interested? Call Ginger at 206-525-1213 x3131 or email *volunteer@sygw.org* for more information.

classes AND PROGRAMS

Botanical Illustration - Watercolor

DATES & TIMES: *8-part series: Thursdays, April 22, and 29, May 6,13, 20 and 27, and June 3 and 10, 7to 9 p.m.*
INSTRUCTOR: *Louise Smith, Botanical Illustrator*
LOCATION: *Douglas Headhouse, CUH*
FEE: *$220; pre-registration required*

This class is intended as a follow-up to the Botanical Drawing class, or as a stand-alone course. Louise Smith will take you step-by-step through the basics of watercolor wash and dry brush techniques. Materials for the first class will be provided by the instructor. If students already have watercolor supplies, please bring them. Students will have the opportunity to purchase proper supplies from the instructor (around $45) or may purchase them independently (at least $100).

Iris, the Rainbow Flower for all Garden Situations

DATE &TIME: *Saturday, May 1, 9 a.m. to noon*
INSTRUCTOR: *Richard Greenberg, owner of Earth Wizardry Landscape*
LOCATION: *NHS Hall, CUH and two nearby gardens*
FEE: *$30; pre-registration required*

Irises are among the easiest perennials to grow in the Pacific Northwest. They are invaluable additions to gardens for their flowers, fragrance, foliage and contrasting texture to companion plants. In this class, iris collector and breeder Richard Greenberg will give an overview of gardening with iris, iris combinations, planting, care and propagation. We will begin in the classroom and then carpool to two nearby gardens to view irises at peak bloom in garden settings.

Secret Nurseries and Best Gardens

DATE & TIME: *Tuesday, May 4 from 7 to 8:30 p.m.*
INSTRUCTOR: *Debra Prinzing, garden writer*
LOCATION: *Douglas Headhouse, CUH*
FEE: *$28; $25 Arboretum Foundation members; pre-registration required*

Join nursery and garden sleuth Debra Prinzing as she leads a virtual tour of the Northwest's best gardening resources, display gardens and plant sources. You'll be treated to some surprising places to see and buy plants - and take home some great ideas for where to find cool accessories and ornamentation for the garden. Debra is the editor of the ninth edition of The Northwest Gardeners' Resource Directory.

Growing Ferns in Northwest Gardens

DATE & TIME: *Saturday May 15, 9:30 - 11:30 am*
LOCATION: *Graham Visitors Center, WPA*
INSTRUCTOR: *Board Members of the Hardy Fern Foundation (HFF)*
FEE: *$30; $25 Arboretum Foundation & HFF members; pre-registration required*

Ferns were the first vascular plants on the planet, and are still important in today's gardens. HFF board members will introduce you to the world of ferns in this class at the Washington Park Arboretum. Learn how ferns fit into the plant world, how to choose and cultivate them, and learn which ones are recommended for our area. The class will include identification features and practical advice on establishing and maintaining these marvelous garden ornamentals. Examples will be on display in the classroom. 60 species are currently in the Hardy Fern Foundation's Habitat Garden in the Arboretum Signature Bed.

Garden Photography - Basic

DATES & TIMES: *Friday, May 21, 7 to 9 p.m. and Saturday, May 22, 9 a.m. to noon and 6 to 9 p.m.*
INSTRUCTOR: *Allan Mandell, Garden Photographer*
LOCATION: *Douglas Classroom, CUH*
FEE: *$110 plus film processing; pre-registration required*

Students loved last year's photography workshop so much that we are offering it again this year. This class is for gardeners and/or photographers who know how to use their cameras and aspire toward capturing the spirit of the garden on film. We will work toward a new understanding of what it means to practice photography. After a Friday evening introductory lecture, students will receive specific visual training during a Saturday morning shoot at the Bellevue Botanic Garden. Film will be processed that day for the evening potluck/critique at CUH.

Class size is limited to 20 people. Allan Mandell is an award-winning professional garden photographer. His books include *Artists in their Gardens* and *Naturalistic Gardening*.

Garden Photography - Advanced

DATES & TIMES: *Friday, June 4, 7 to 9 p.m. and Saturday, June 5, 9 a.m. to noon and 6 to 9 p.m.*
INSTRUCTOR: *Allan Mandell, Garden Photographer*
LOCATION: *Isaacson and Douglas Classroom, CUH*
FEE: *$110 plus film processing; pre-registration required*

The perfect next step for the dedicated photographer, this class is for those who are passionate in their pursuit of garden photography as an expressive medium. If you have begun to get a working feel for the core principles taught in Allan's first workshop, now is your chance to go beyond that to fine tune your eye and your practice of garden photography.

Admission prerequisites are Basic Garden Photography or instructor's permission. A hands-on knowledge of the operation of your camera in its manual setting is essential and all photo gear must be in full working condition. The format will again be a Friday evening lecture, Saturday half-day shoot, and Saturday evening potluck-critique.

Discovering Hypertufa

DATE & TIME: *Saturday June 5, 10 to 11:30 a.m.*
INSTRUCTOR: *Lorene Forkner, owner of Fremont Gardens Nursery*
LOCATION: *Douglas Headhouse, CUH*
FEE: *$30; pre-registration required*

Discover Hypertufa - a completely frost-proof, hard yet porous material made from basic hardware store materials. Nursery owner Lorene Forkner, well-known for her flair in decorating the home and garden, uses these troughs to set off low tufts of textural groundcovers dotted with tiny blooming gems. Everyone will have the opportunity to make a trough to take home, and will be provided with detailed finishing instructions, as well as planting suggestions. Garden attire recommended.

Hardy Succulents for Northwest Gardens

DATE & TIME: *Thursday June 17, 7 to 9 p.m.*
INSTRUCTOR: *Elizabeth Petersen, Garden Writer & Writing Coach*
LOCATION: *Douglas Headhouse, CUH*
FEE: *$28; $25 Arb Foundation members; pre-registration required*

Portland gardener and garden writer Elizabeth Petersen will discuss hardy sedums and sempervivums and their uses in northwest gardens. Though their newest use is as the plant of choice for green roofs, succulents can be grown in a number of ways: with rocks, as ground cover, or in containers. Students will learn how to use succulents in the garden, plant combinations, suggested sources, and recommended species, from ground covers to upright perennials.

affiliated gardening programs

The following classes are offered by Seattle Public Utilities, WSU Cooperative Extension, and WSU Master Gardeners together with the Center for Urban Horticulture.

Ageless Gardening

DATE & TIME: *Wednesday, June 16, 7 to 8:30 p.m.*
INSTRUCTOR: *Joan Helbacka, Master Gardener*
LOCATION: *NHS Hall, CUH*
FEE: *$10; pre-registration required*

Is gardening becoming more difficult for you, a family member or friend? Master Gardener Joan Helbacka has done some of the research for you. Books, web sites and a commonsense approach can help keep you reaping the health benefits of gardening for years to come. This class will cover fitness for the "sport" of gardening, safety issues, and injury avoidance for any age gardener. Plus, by incorporating design elements of enabling or barrier-free gardens while we are still relatively able, we could extend our years as active gardeners.

Backyard Composting

DATE & TIME: *Tuesday May 18, 7 to 8:30 p.m.*
INSTRUCTOR: *Darcy Batura, WSU Cooperative Extension*
Douglas Classroom, CUH
FEE: *$10; pre-registration required*

Come learn quick and easy ways to turn yard trimmings and vegetable scraps into rich soil amendments. Darcy Batura, WSU Extension faculty, will discuss how to make compost from yard trimmings and kitchen scraps, what types of bins are best to use, how and when to harvest, and troubleshooting along the way.

Keeping Plants Healthy with Drip Irrigation

DATES & TIMES: *Part 1: Wednesday, May 12, 7to 8:30 p.m.*
Part 2: Saturday, May 15, 10 to 11:30 a.m. or 1 to 2:30 p.m.
INSTRUCTOR: *Howard Stenn, owner of Stenn Design*
Douglas Classroom, CUH, and Bradner Gardens
FEE: *$30; pre-registration required*

Drip irrigation can reduce your watering by 60%, save you time and money and give you healthier plants. In part 1, learn about the variety of choices for drip irrigation and see if it's the right kind of watering system for your needs. In part 2, meet at Bradner Gardens Park to look at a variety of drip irrigation systems already in place and get hands-on experience fitting sample drip parts together. Co-sponsored by Seattle Public Utilities, Seattle Tilth, WSU Master Gardeners and Friends of Bradner Gardens Park.

youth and family programs

For more information or to schedule the following programs, contact the Arboretum Education Office, weekdays at 206-543-8801.

Family Adventure Packs

Investigate the wonders of the Arboretum with a Family Adventure Pack. Family packs, for groups of five or less, include easy-to follow activities, maps, field guides, games and more. Available year-round from 10 a.m. to 3 p.m. at the Graham Visitors Center Front Desk. $5 fee for two-hour rental. They are FREE to Arboretum Foundation Members and Arboretum Guides.

FAMILY TREE PACK Investigate the wonders of a living museum. Focus on leaves, buds, flowers, fruit and bark. Learn about pollination by doing it yourself!

WETLAND WONDERS Take a safari to Foster and Marsh Islands along the Waterfront Trail. Go on a wetland scavenger hunt, collect aquatic insects and play games. Pack comes with binoculars!

Saplings School Programs

Washington Park Arboretum becomes nature's classroom for Saplings School Programs, educational tours for students in Grades K-8. The 90-minute programs are held Monday through Friday mornings during the school year. The cost is $2.50 per child (chaperones are free). Saplings program curricula are aligned with the WA State Essential Academic Learning Requirements. Please call to reserve a date at least three weeks in advance.

Grades K-2: Discover Plants

Younger students gain exposure to the wonderful world of plants by using characteristics to categorize living things. Students will compare and contrast similarities between plants and people as they learn what each needs to grow and be healthy.

Wetland Ecology Walk: Focus on Habitats Grades K-3

Explore the flora and fauna on Foster Island as you learn about who lives in the Arboretum's unique urban wetland. Learn first hand about various habitats around the Arboretum.

Wetland Ecology Walk: Focus on Ecosystems Grades 4-8

Investigate the complex world of a wetland ecosystem. Foster Island provides a unique opportunity for students to study an urban wetland up close and discover the importance and functions of wetlands.

Life Cycle of a Plant: Spring Sprouts Grades 3-6, April - June

What is the reason for a flower? Discover the secrets of springtime as you learn about the lifecycle of plants from flower to fruit. Perpetuate the cycle by planting seeds of your own to take home.

Native Plants and People Grades 3-8

What is a native plant? Students will learn to identify several northwest native plants. Discover the historical importance of native plants to the Coast Salish people. Students will learn how native plants were used in daily life through discussion, by using hands-on artifacts and role-playing activites.

Arboretum Self-Guided Pack Programs

Explorer Packs

Great for teachers, scouts, camps, daycare and other youth groups. Lead your own group on an exploration of the arboretum with Explorer Packs-rental backpacks filled with fun activities, games, maps and equipment for investigating. Each Explorer Pack has a different theme and can accommodate up to 30 children. Available year-round from 10 a.m. to 3 p.m. (advance registration required). Rental fee is $15 for 2 hours.

TREE-TECTIVE Come sleuthing in the Arboretum and learn amazing facts about trees. This pack includes hand lenses, magnifiers, field guides, games and even "tree cookies!"

MARSH MADNESS Explore Seattle's largest wetland - Foster Island - through aquatic dips, wildlife identification and games. Investigate the amazing critters and plants that make the wetland their home. This pack includes dip nets, aquaria, field guides, scavenger hunts and more.

SIGNS OF SPRING (APRIL-JUNE) Come explore the secrets of the season - parts of flowers, pollination and seed dispersal through games, scavenger hunts and experiments.

arboretum guided tours

Enjoy the seasonal splendor of the Arboretum! Explore the flowering cherries, azaleas, rhododendrons and magnolias in full-bloom. This spring, take a guided tour of historic Azalea Way and Loderi Valley.

- Guided tours are available for groups of 10 or more.
- Tours are 60 – 90 minutes; led by trained Arboretum guides.
- Fees: $3 per person ($2 for Arboretum Foundation members), $30.00 minimum.
- Three week advanced registration required.
- To reserve a date, call the WPA Education Office at 206-543-8801.

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Arboretum Weekend Walks at One

Free weekend walks are offered the first and third Sunday of the month at 1 p.m. The sixty to ninety minute walks, led by trained Arboretum guides, focus on seasonal interest in the Arboretum. Walks depart from the Graham Visitors Center. Call ahead to ensure a weekend tour, 206-543-8801.

events calendar FOR SPRING 2004

APRIL

5 Ornithological Society, 7 p.m., CUH
Iris Society, 7:30 p.m., CUH
Miller Library Tour, 7 p.m., CUH

7 WA Butterfly Assoc., 7 p.m., CUH
Rhododendron Society, 7:15 p.m., CUH

8 Rock Garden Society, 7:15 p.m., CUH

12 Orchid Society, 7 p.m., CUH

13 P. S. Mycological Society, 7:30 p.m., CUH

14 NHS Lecture, 7 p.m., CUH
Plant Amnesty, 7 p.m., CUH

15 Audubon Society, 6:30 p.m., CUH

17 Master Gardener Plant Sale, 9 a.m. to 4 p.m., CUH

18 Master Gardener Plant Sale, 10 a.m. to 3 p.m., CUH

20 Rose Society, 7:30 p.m.,CUH

22 **Botanical Illustration-Part 1**, 7 p.m.,CUH

24 African Violet Show and Sale, noon to 5 p.m.,CUH

26 Bonsai Association, 7:30 p.m., CUH

29 **Botanical Illustration-Part 2,** 7 p.m.,CUH

MAY

1 **Iris, the Rainbow Flower,** 9 a.m.,CUH

2 **NHS Auction,** 4 to 8 p.m., CUH

3 Ornithological Society, 7 p.m., CUH
Miller Library Tour, 7 p.m., CUH

4 **Secret Nurseries and Best Gardens,** 7 p.m.,CUH

5 WA Butterfly Association, 7 p.m., CUH
Rhododendron Society, 7:15 p.m., CUH

6 **Botanical Illustration-Part 3**, 7 p.m.,CUH

8-9 Bonsai Asso. Exhibit, 10 a.m. to 5 p.m., CUH

10 Orchid Society, 7 p.m., CUH

11 P. S. Mycological Society, 7:30 p.m., CUH
WPA Historic Study Review, 7 p.m., WPA

12 NHS Lecture, 7 p.m., CUH
Drip Irrigation-part 1, 7 p.m., CUH

17 Rock Garden Society, 7:15 p.m., CUH
Botanical Illustration-Part 4, 7 p.m.,CUH

18 Rock Garden Society, 7:15 p.m., CUH

19 **Drip Irrigation-part 2,** 9 a.m. & 1 p.m
Growing Ferns, 9:30 a.m., WPA

20 Rose Society, 7:30 p.m., CUH
Backyard Composting, 7 p.m.,CUH

20 **Botanical Illustration-Part 5,** 7 p.m.,CUH

21 **Garden Photography-Basic,** 7 p.m., CUH

22 **Garden Photography-Basic,** 9 a.m. and 6 p.m.

24 NW Perennial Alliance lecture, 1 p.m., CUH

27 **Botanical Illustration-Part 6,** 7 p.m.,CUH

JUNE

1 Rose Society, 7:30 p.m., CUH

2 WA Butterfly Association, 7 p.m., CUH
Rhododendron Society, 7:15 p.m., CUH

3 **Botanical Illustration-Part 7,** 7 p.m.,CUH

4 Hardy Fern Foundation Sale, 1 to 6 p.m., CUH
Garden Photography-Advanced, 7 p.m., CUH

5 Hardy Fern Foundation Sale, 10 a.m. to 4 p.m., CUH
Garden Photography-Advanced, 9 a.m. and 6 p.m.
Discovering Hypertufa, 10:30 a.m., CUH

7 Ornithological Society, 7 p.m., CUH
Miller Library Tour, 7 p.m., CUH

8 P.S. Mycological Society, 7:30 p.m., CUH

9 NHS Lecture, 7 p.m., CUH

10 Rock Garden Society, 7:15 p.m., CUH
Botanical Illustration-Part 8, 7 p.m.,CUH

10 Orchid Society, 7 p.m., CUH

16 **Ageless Gardening,** 7 p.m., CUH

19 Bamboo Society Show & Sale, 9 a.m. to 4 p.m., CUH

registration
FOR CLASSES AND PROGRAMS

To Register: Please complete and return the registration form, along with your payment, to the Center for Urban Horticulture.

Refunds: Requests for refunds on events not attended must be made in advance in writing, by phone, fax, or in person. Requests received fewer than 7 days from the first class meeting have a 25% handling fee deducted. No refunds can be made after the first class meeting. If a program is cancelled for any reason, a full refund will be made to all enrollees. Refunds may take four weeks to process.

Returned Checks: A $25 service fee will be charged for returned checks.

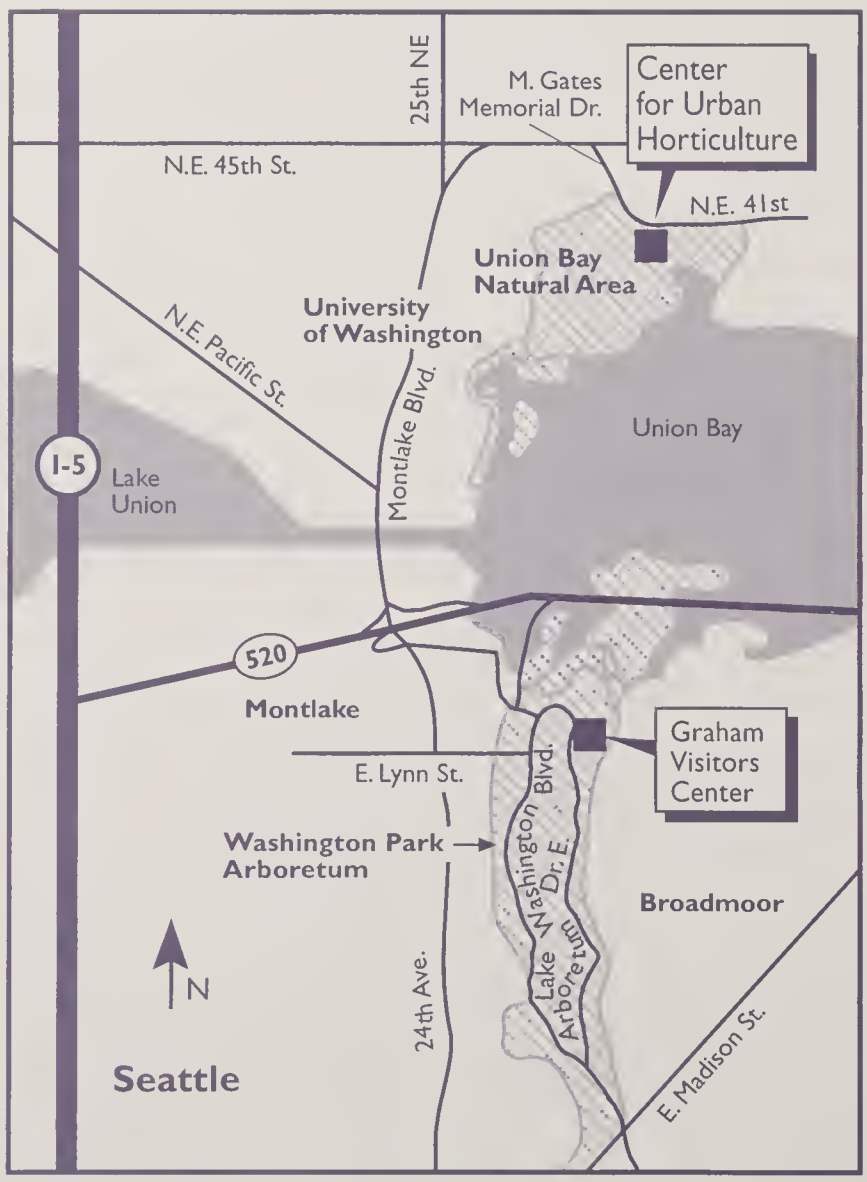
Special Needs: To request disability accommodation, please contact the Disability Services Office at least ten days in advance of an event: 206-543-6450 (voice); 206-543-6452 (TTY); or by e-mail at *dso@u.washington.edu.*

Class Locations and Parking: Program locations are listed with each program description. The Graham Visitors Center at Washington Park Arboretum is located at 2300 Arboretum Drive East. Douglas Classroom, NHS Hall and the other meeting rooms at Union Bay are located at 3501 N.E. 41st Street. Prepaid parking is located adjacent to the buildings.

Center for Urban Horticulture

Union Bay Campus
3501 NE 41st Street
Box 354115
Seattle, WA 98195-4115
206-543-8616 (phone)
206-685-2692 (fax)
www.urbanhort.org

Washington Park Arboretum
2300 Arboretum Drive East
Box 358010
Seattle, WA 98195-8010
206-543-8800 (phone)
206-616-2871 (fax)
www.wparboretum.org



REGISTRATION FORM

CENTER FOR URBAN HORTICULTURE SPRING 2004

PROGRAM	FEE	AF MEMBERS	# PEOPLE	TOTAL FEE
HORTICULTURE PROGRAMS				
Botanical Illustration - Watercolor, 8 weeks starting April 22	$220	$220		
Iris, the Rainbow Flower, May 1	$30	$30		
Secret Nurseries and Best Gardens, May 4	$28	$25		
Growing Fernsin PNW Gardens, May 15	$30	$25		
Garden Photography - Basic, May 21 and 22	$110	$110		
Garden Photography - Advanced, June 4 and 5	$110	$110		
Discovering Hypertufa, June 5	$30	$30		
Hardy Succulents, June 17	$28	$25		
AFFILIATED GARDENING PROGRAMS				
Drip Irrigation, May 12 and 15 Please check May 15 preference: ☐10 a.m. session ☐1 p.m. session	$30	$30		
Backyard Composting, May 18	$10	$10		
Ageless Gardening, June 16	$10	$10		

TOTAL FEE $

PAYMENT

◯ Check (payable to *University of Washington*) ◯ Visa ◯ MasterCard

CREDIT CARD NUMBER EXPIRATION DATE

NAME ON CARD

GENERAL INFORMATION

NAME

ADDRESS CITY STATE ZIP

DAY PHONE EVENING PHONE

FAX EMAIL

Mail payment and registration to:
Urban Horticulture Courses
University of Washington
Box 354115
Seattle, WA 98195-4115

You may also register in person at:
Union Bay Campus
3501 NE 41st Street
Mon.–Fri., 8:30 a.m. to 5:00p.m.
or phone 206-685-8033.

Registrations are filled in the order received. Enrollment is limited. Classes fill rapidly, so register early.

CENTER *for* URBAN HORTICULTURE

director's notes

We head into spring and summer with both hope and uncertainty. We hope that the rebuilt Merrill Hall is finished in time for Autumn Quarter. The current schedule indicates a move-in date around mid October. We hope that the searches for the Elisabeth C. Miller Library Manager and CUH and WPA Director are successful. Both of these searches appear to be headed towards positive and timely outcomes.

However, the resignation of Professor Linda Chalker-Scott and the assimilation of the undergraduate curriculum into the new Environmental Sciences and Resource Management curriculum have created considerable uncertainty. The loss of Professor Chalker-Scott will likely mean a void of at least nine months duration even if the search for her replacement started today. Money is being provided by the College of Forest Resources to meet teaching obligations. However, meeting these obligations is increasing the pressure on an already depleted faculty. Fortunately, some very able graduate students have stepped to the challenge and are providing help.

TOM HINCKLEY, PhD, DIRECTOR, CENTER FOR URBAN HORTICULTURE

UNIVERSITY OF WASHINGTON
CENTER FOR URBAN HORTICULTURE

The CUH mission is "to apply horticulture to natural and human-altered landscapes to sustain natural resources and the human spirit."

- **Continuing and Public Education**
- **Douglas Research Conservatory**
- **Elisabeth C. Miller Library**
- **Otis Douglas Hyde Herbarium**
- **Undergraduate and Graduate Education**
- **Union Bay Gardens and Natural Area**
- **Rare Plant Care and Conservation**
- **Sustainable Community Landscapes**
- **Washington Park Arboretum**

CENTER FOR URBAN HORTICULTURE
Tom Hinckley, Ph.D., Director
3501 NE 41st Street
Box 354115
Seattle, WA 98195-4115
206-543-8616 (phone)
206-685-2692 (fax)
www.urbanhort.org

WASHINGTON PARK ARBORETUM
John Wott, Ph.D., Director
2300 Arboretum Drive East
Box 358010
Seattle, WA 98195-8010
206-543-8800 (phone)
206-616-2871(fax)
www.wparboretum.org

URBAN HORTICULTURE NEWSLETTER, VOL. 21, NO. 2

CUH/WPA Continuing & Public Education Staff:
Sue Nicol, Outreach Coordinator
Jean Robins, Program Coordinator
Sandy Kirchner, Assistant Outreach Coordinator
Chris Berry, Education Coordinator (Youth & Community Outreach)
Shawna Zuege, Arboretum Education Program Assistant
Lisa Sanphillippo, Arboretum *Education Program Assistant*

CUH/WPA Building & Rentals Management Staff:
Becky Johnson, CUH Facilities Manager
Ray Larson, CUH Facilities Coordinator
Brett Mercier, WPA Building Services Coordinator

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College of Forest Resources
University of Washington
3501 NE 41st Street
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